OMRON®

Thumbwheel Switch	A7DP/BL

Reliable Thumbwheel Switch with Dustproof
Construction and Easy Front Mounting

- Pen-push switches are designed especially for use in portable equipment
- Locking switches cut down operating errors in control panels
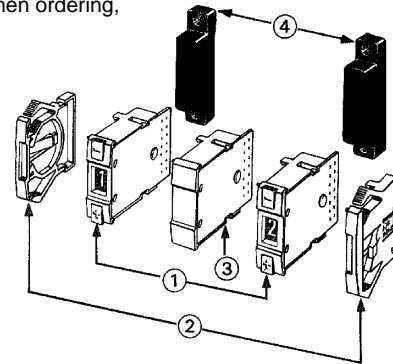- Internal contacts boost reliability

Ordering Information

Note: A7DP and A7BL switch units can be ordered with limited setting ranges. When ordering, include the range in the model number as shown in the following examples:

A7DP-206-S06 (Light gray A7DP with a range of 0 to 6)
A7DP-206-S18-1 (Black A7DP with a range of 1 to 8)

1. Switch units
2. End caps
3. Spacer
4. Connectors

■ SWITCH UNITS

Output code	Type	Part Number			
		PCB terminal		Solder terminal	
		Light gray case	Black case	Light gray case	Black case
06 (binary code)	Pen-push	**A7DP-206**	**A7DP-206-1**	—	—
06 (binary code)	Locking	—	—	**A7BL-206**	**A7BL-206-1**
07 (binary code w/diode provision)	Locking	—	—	**A7BL-207**	**A7BL-207-1**

Note: Switch units, end caps, spacers, and connectors must be ordered separately and are not factory-assembled for shipment.

■ ACCESSORIES

Accessory		Part Number			
		For A7DP		For A7BL	
		Light gray	Black	Light gray	Black
End cap		**A7D-2M**	**A7D-2M-1**	**A7B-M**	**A7B-M-1**
Spacer		**A7D-2PA**	**A7D-2PA-1**	**A7B-PA**	**A7B-PA-1**
Connector	Solder terminal	—	—	**A7B-C**	**A7B-C**
	PCB terminal	—	—	**A7B-CP**	**A7B-CP**

Note: 1. When placing your order, please specify the model numbers and quantities of required switch units, end caps, and spacers, respectively. (Note that switch units and accessories are not factory-assembled for shipment.)
2. End caps come as a set, left and right.

To order spacers marked with measurement units or symbols, select the unit or symbol from the table below and put its code letter in place of the final letter A in the model number.

Example: A7D-2PK (light gray spacer with °C mark for A7DP)

Code letter	A	B	C	D	E	F	G	H	J	K	L	Q	T	U
Marking	Blank	SEC	MIN	H	g	kg	mm	cm	m	°C	PCS	x10 SEC	0	•

Characteristics

		A7DP	A7BL
Switching capacity (resistive load)		1 mA to 0.1 A, 5 to 30 VDC	50 VAC/28 VDC, 1 mA to 0.1A
Carry current		100 mA	1 A max.
Contact resistance		200 mΩ max.	
Insulation resistance		10 MΩ min. (at 250 VDC) between nonconnected terminals	10 MΩ min. (at 500 VDC) between nonconnected terminals
		100 MΩ min. (at 500 VDC) between each terminal and noncurrent carrying part	1,000 MΩ min. (at 500 VDC) between each terminal and noncurrent carrying part
Dielectric strength		250 VAC, 50/60 Hz for 1 minute between nonconnected terminals	600 VAC, 50/60 Hz for 1 minute between nonconnected terminals
		1,000 VAC, 50/60 Hz for 1 minute between each terminal and noncurrent carrying part	
Operating force		350 g max.	550 g max.
Vibration resistance		10 to 55 Hz, 1.5 mm double amplitude	
Shock resistance		500 m/s^2 (approx. 50 G) min.	
Ambient temperature		-10° to 70°C (no condensation)	-10° to 65°C (no condensation)
Storage temperature		-20° to 80°C	
Humidity		35% to 85%	45% to 85%
Service life	Mechanical	30,000 steps min.	100,000 steps min.
	Electrical	20,000 steps min.	50,000 steps min.
Weight (per unit)		Approx. 1.2 g	Approx. 4.1 g

Note: Data shown are of initial value

Dimensions

Unit: mm (inch)

■ PEN-PUSH SWITCHES

A7DP-206(206-1)
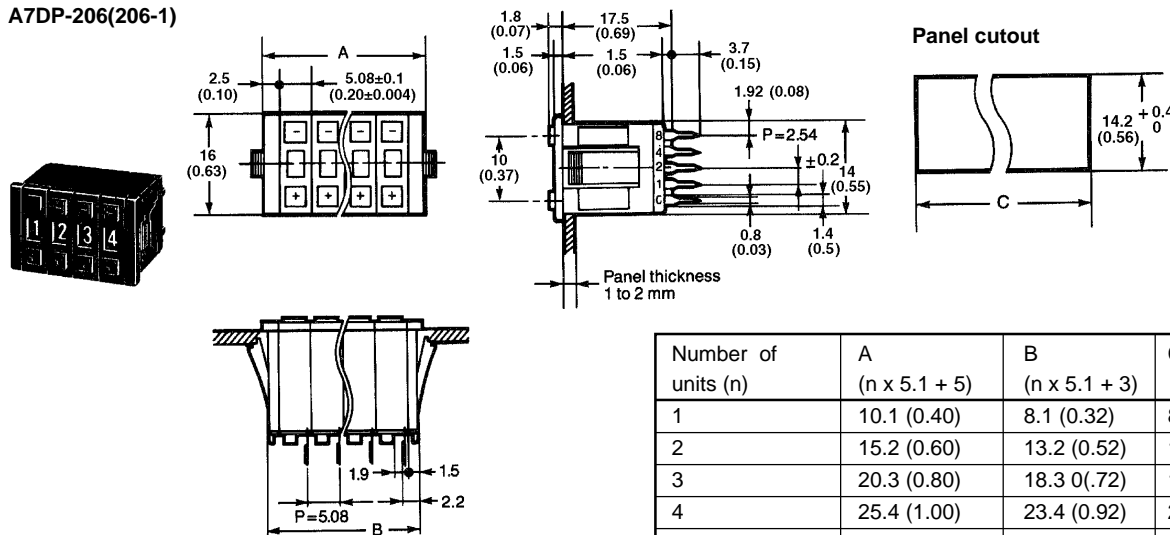
Panel cutout

| Number of units (n)	A (n x 5.1 + 5)	B (n x 5.1 + 3)	C
1	10.1 (0.40)	8.1 (0.32)	8.4 (0.33)
2	15.2 (0.60)	13.2 (0.52)	13.5 (0.53)
3	20.3 (0.80)	18.3 0(.72)	18.6 (0.73)
4	25.4 (1.00)	23.4 (0.92)	23.7 (0.93)
5	30.5 (1.20)	28.5 (1.12)	28.8 (1.13)
6	35.5 (1.40)	33.5 (1.32)	33.9 (1.33)
7	40.6 (1.60)	38.6 (1.52)	39.0 (1.53)
8	45.7 (1.80)	43.7 (1.72)	44.1 (1.74)
9	50.8 (2.00)	48.8 (1.92)	49.2 (1.94)
10	55.9 (2.20)	53.9 (2.12)	54.3 (2.14)

Note: 1. Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions.
   2. Each model number applies to a single switch unit and not to the switch assembly as shown in the drawings.
   3. Common terminal "C" is at the bottom when the switch is viewed from the front.
   4. The asterisk "*" indicates the distance to the terminal position.

## ■ LOCKING SWITCHES

A7BL-206(206-1)
A7BL-207(207-1)

Panel cutout
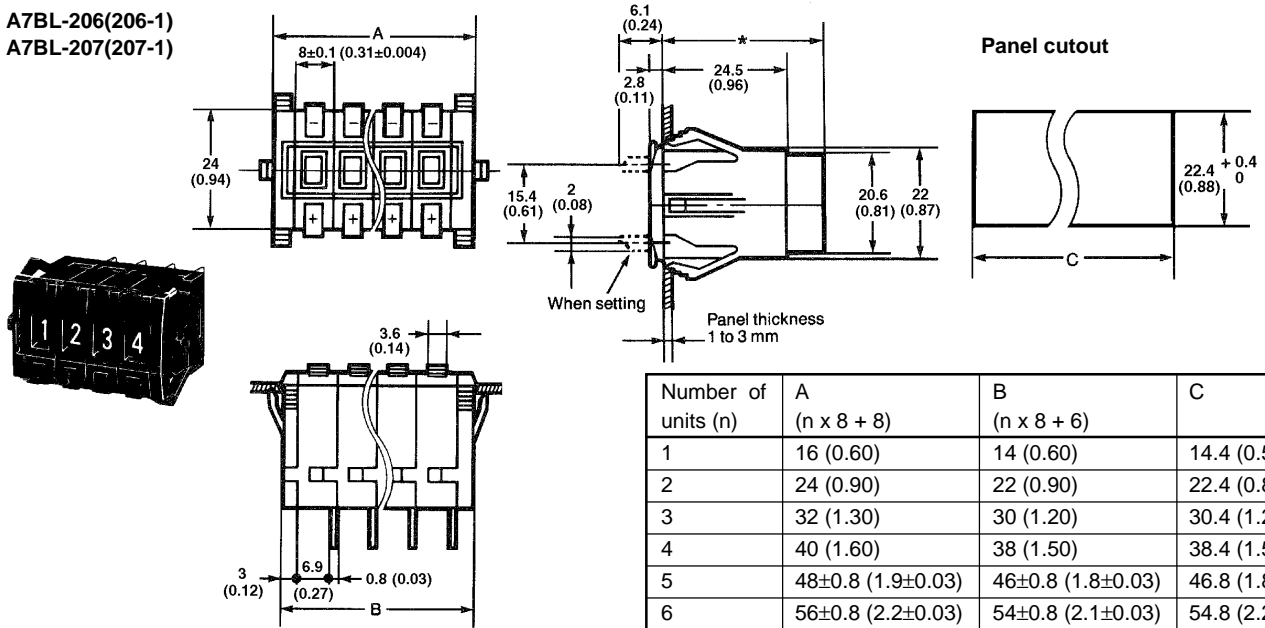
Number of units (n)	A (n x 8 + 8)	B (n x 8 + 6)	C
1	16 (0.60)	14 (0.60)	14.4 (0.57)
2	24 (0.90)	22 (0.90)	22.4 (0.88)
3	32 (1.30)	30 (1.20)	30.4 (1.20)
4	40 (1.60)	38 (1.50)	38.4 (1.50)
5	48±0.8 (1.9±0.03)	46±0.8 (1.8±0.03)	46.8 (1.80)
6	56±0.8 (2.2±0.03)	54±0.8 (2.1±0.03)	54.8 (2.20)
7	64±0.8 (2.5±0.03)	62±0.8 (2.4±0.03)	62.8 (2.50)
8	72±0.8 (2.8±0.03)	70±0.8 (2.7±0.03)	70.8 (2.80)
9	80±0.8 (3.1±0.03)	78±0.8 (3.0±0.03)	78.8 (3.10)
10	88±0.8 (3.5±0.03)	86±0.8 (3.4±0.03)	86.8 (3.40)

Note: 1. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.
2. Each model number applies to a single switch unit and not to the switch assembly as shown in the drawings.
3. Common terminal "C" is at the bottom when the switch is viewed from the front.
4. Model A7BL: The dimension indicated by the asterisk "*" is 32.5 mm for a switch unit with an output code of 06 and 43.5 mm for one with an output of 07.
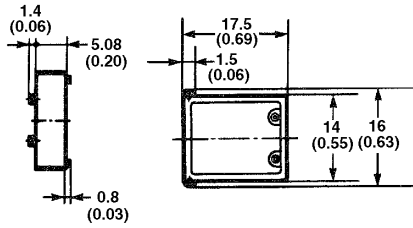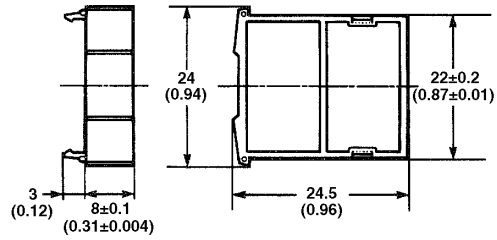
■ END CAPS

A7D-2M(-2M-1)
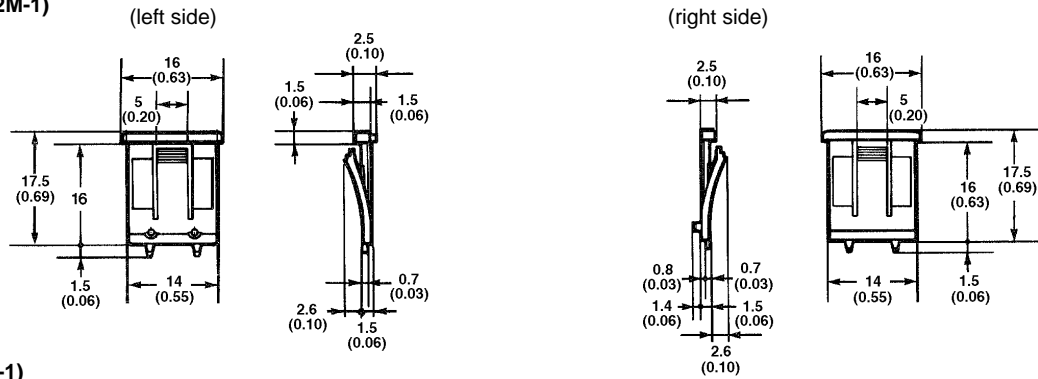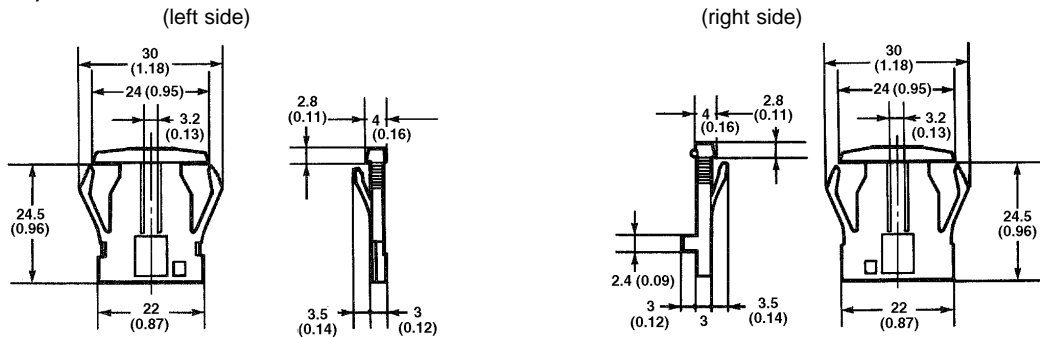
(left side)   (right side)

A7B-M(-M-1)

(left side)   (right side)

Note: Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions
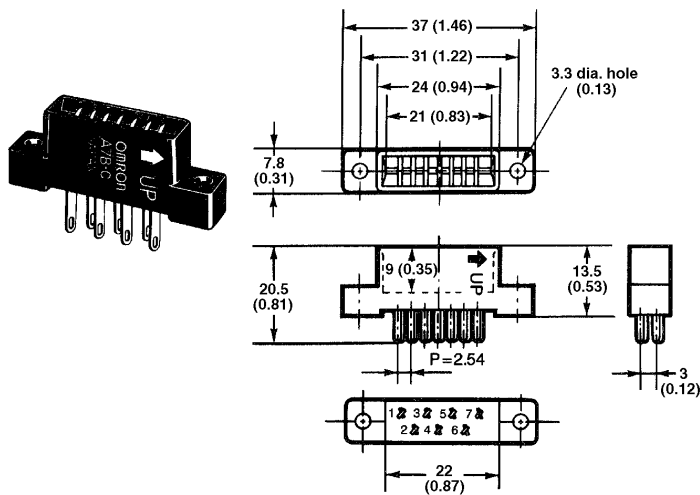
3

■ SPACERS

A7D-2PA(-2PA-1)
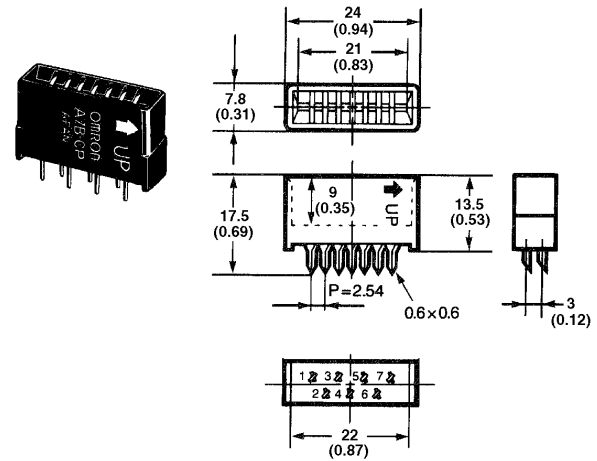
A7B-PA(-PA-1)

■ CONNECTORS

A7B-C (for solder terminals)

A7B-C (for PCB terminals)

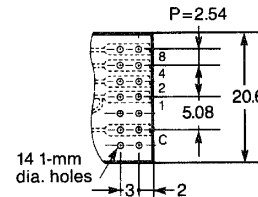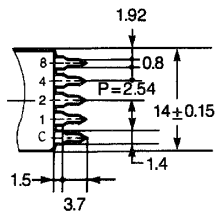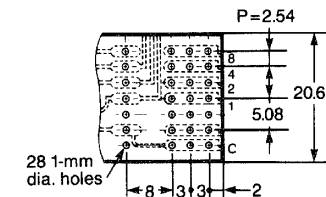Note: Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions

■ TERMINALS

Type	Pen-push A7DP PCB terminals	Locking A7BL Solder terminals
Output code 06		
Output code 07		

Hints on Correct Use ━━━━━━━━━━━━━━━━━━

Refer to HINTS ON CORRECT USE under the General Information section.

OMROΠ

OMRON ELECTRONICS, INC.
One East Commerce Drive
Schaumburg, IL 60173
1-800-55-OMRON

OMRON CANADA, INC.
885 Milner Avenue
Scarborough, Ontario M1B 5V8
416-286-6465

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Switch Fixings *category:*

Click to view products by Omron *manufacturer:*

Other Similar products are found below :

893102000 00-5150 LZZ1A 0098.9234 M2PA-5011 630155 635401 6PA113 6PA147-E6 6PA148-E6 6PA32 6PA9 700106 700109 700303A56 700C1GRY 700C2GRN 704-6001 704.960.9 704.965.2 704.965.6 704.966.0 7089-3 710082-B11 71M1048 757200264 764300000 MHU35 MHU37 807039-1 825.003.011 825.005.011 825.053.011 825.055.011 826.000.071 827.020.011 827.400.021 835.900.023 MML52C10C MML52E10C MML92HGH MML93K 84211M02CNNS 84212M02CNNS 84217A8.0LNOS 842.500.011 843.000.011 843187-000 843487-000 84-901